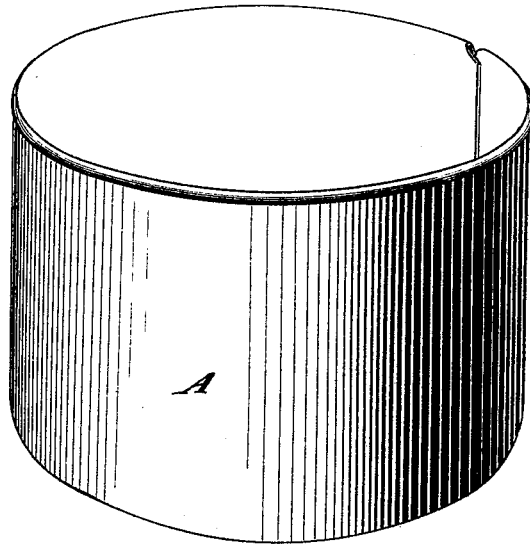


R. C. MORRIS.  
Sheet-Metal Vessel.

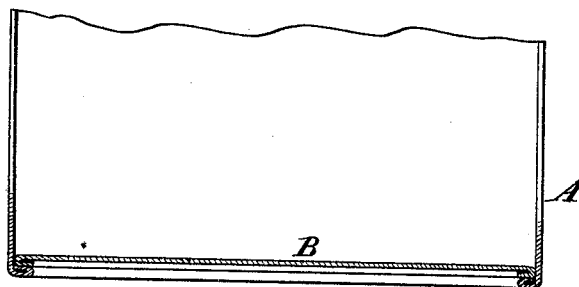
No. 220,488.

Patented Oct. 14, 1879.

*Fig. 1.*



*Fig. 2.*



*Witnesses.*

*A. Ruppert,*  
*C. M. Connell*

*Inventor.*

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*Attorney.*

# UNITED STATES PATENT OFFICE.

ROBERT C. MORRIS, OF OLNEY, ILLINOIS, ASSIGNOR OF ONE-HALF OF HIS  
RIGHT TO HIRAM H. McLANE, OF SAN ANTONIO, TEXAS.

## IMPROVEMENT IN SHEET-METAL VESSELS.

Specification forming part of Letters Patent No. **220,488**, dated October 14, 1879; application filed  
March 19, 1879.

### *To all whom it may concern:*

Be it known that I, ROBERT C. MORRIS, of Olney, in the county of Richland and State of Illinois, have invented certain new and useful Improvements in Sheet-Metal Vessels; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of a sheet-metal vessel, showing the exterior thereof, and also a portion of the interior, together with a portion of the joint caused by uniting the two ends of the sheet which constitutes the cylindrical portion thereof; and Fig. 2 is a sectional elevation, showing the method of constructing the cylindrical portion, and also the bottom or head, and of attaching them together.

Corresponding parts are designated by like letters in both of the figures.

This invention relates to vessels which are made of tin and other kinds of sheet metal, the object being to provide such vessels with a bottom that shall not be exposed to wear when they are standing on their ends; and, further, to protect them against leakage when one thickness of the metal composing the surface which rests upon the ground or other substance has been worn away; and it consists in combining, with the body of a sheet-metal vessel having formed upon its end or ends an inwardly-projecting double flange or ledge, a head having upon its periphery or outer edge two thicknesses of metal, said head being made to rest upon and being soldered to the flange or ledge upon the body of the vessel, as will be more fully described hereinafter.

In constructing vessels of this character I use sheet-tin or any other suitable kind of sheet metal, and they may be made of any required form and dimensions that will adapt them to the purposes to which they are to be applied.

The vessel shown in the drawings is cylindrical in form and is supposed to be made of tin, A representing a cylinder made from a

sheet of such metal, its ends having been joined together in the usual or any approved form. As will be seen by referring to the drawings, the lower edge of this cylinder is turned inward and then outward, the outwardly-turned portion resting upon that portion which extends inward. This form of construction provides a ledge or base for the head or bottom of the vessel to rest upon, and at the same time strengthens the vessel at that point, while it protects the head or bottom from wear, and provides a means of keeping the vessel tight even after the outer thickness of metal has been worn away, the solder used in securing the parts to each other effecting such purpose.

The bottom or head B of the vessel is of circular or other form that will cause it to fit the vessel in which it is to be placed. Upon the periphery or edges of this head a flange is turned, the width of which should be about equal to that of the inwardly-projecting ledge upon the vertical portion of the vessel. This flange, like that upon the part A, is bent in such a manner that its inner surface rests upon the outer surface of the ledge of the head, the diameter or dimensions of which are such as to allow it to be put into the end of the vessel opposite to the one upon which the flange is turned, and pressed downward until it rests upon the ledge formed thereon, when the two are soldered together, by preference, both upon their inner and outer surfaces.

I have described the head of this vessel as having a flange turned upon it, which I regard as the best method of constructing it; but it is true that when small vessels are being made, or when metal of sufficient thickness is used, a plain disk of metal without a flange may be used. This method of construction is applicable to milk-cans, pans, and all forms of vessels used for portable purposes.

I am aware that inwardly-projecting single flanges or ledges formed upon the bodies of sheet-metal vessels have heretofore been used, such, for instance, as are shown in the patents to William A. Wicks, granted February 29, 1876, No. 174,334, and U. D. Alexander, April 28, 1875, No. 162,454, and in a patent granted

to Elliot Savage and Noah C. Smith on the 9th of October, 1855, numbered 13,667, for an improvement in machines for double-seaming cans or articles made of sheet metal. These I do not claim; but

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a sheet-metal vessel, the combination of a body having upon its end an inwardly-projecting double flange or ledge, and a head having upon its periphery or outer edge two thick-

nesses of metal, said head resting upon and being soldered to the flange or ledge formed upon the body of the vessel, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ROBERT C. MORRIS.

Witnesses:

M. B. RUSH,

S. Y. PEARSON.